FORDYCE (J. A.)

HYPERTROPHIC LICHEN PLANUS.

BY

J. A. FORDYCE, M.D.,

Professor of Dermatology and Syphilology, Bellevue Hospital Medical College; Visiting Dermatologist to the City Hospital, etc.

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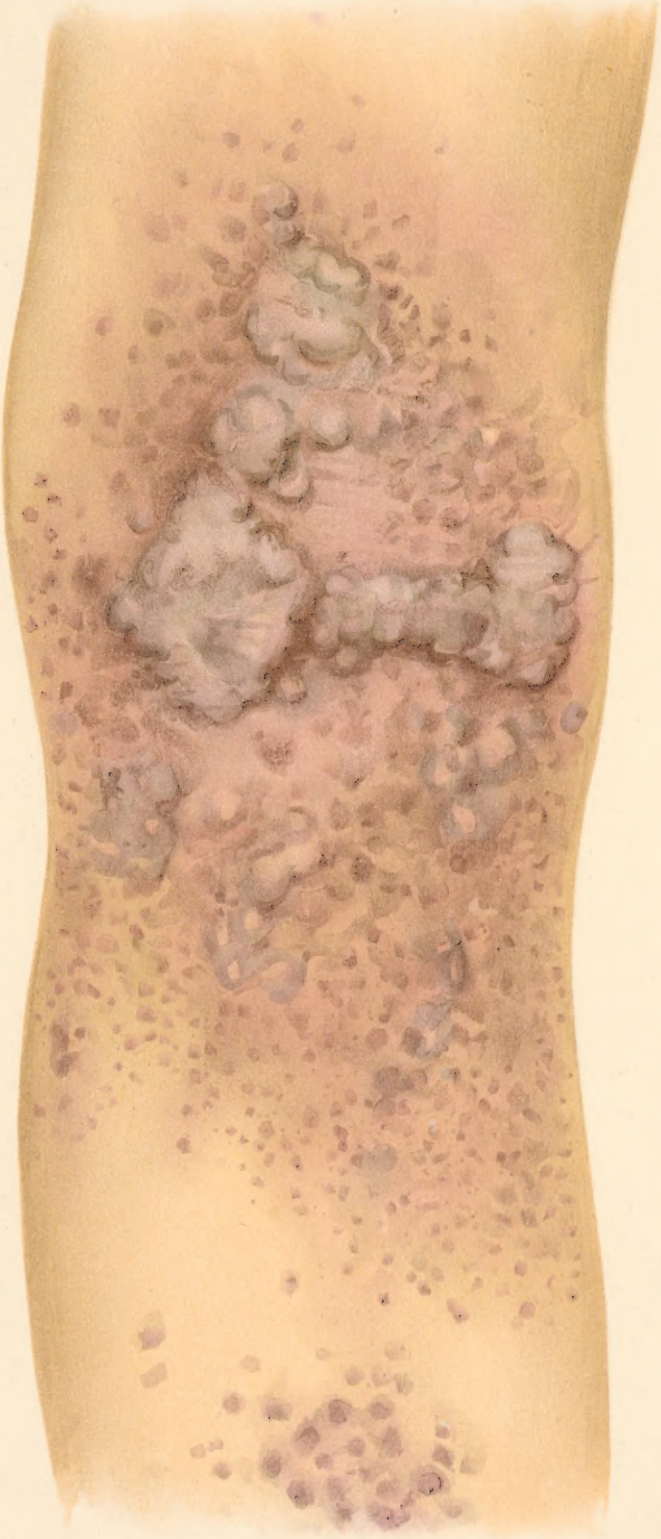

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(ILLUSTRATING DR. FORDYCE'S ARTICLE.)

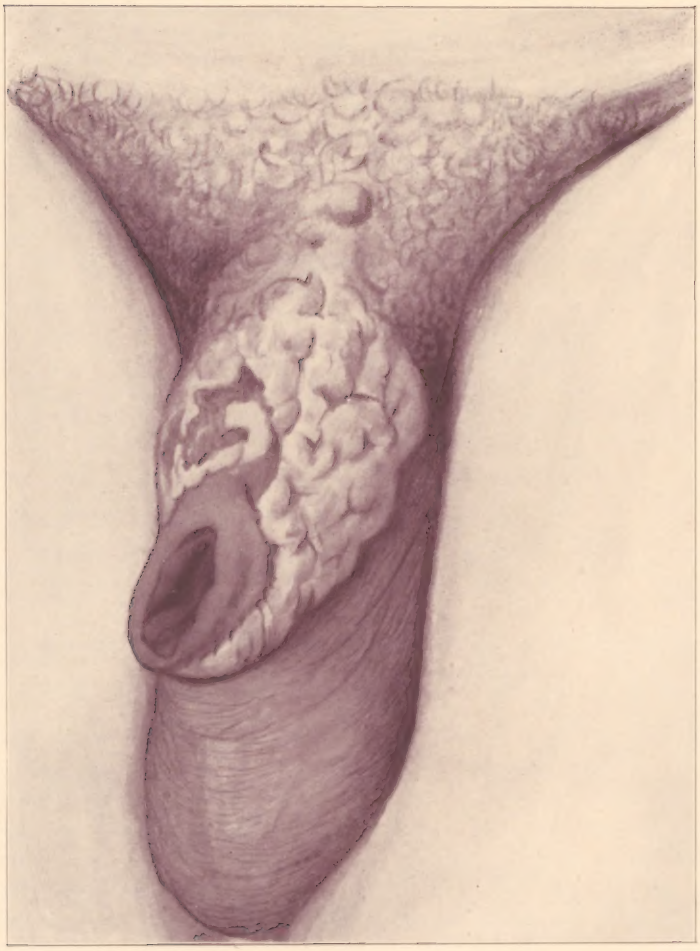

FIG. 2.

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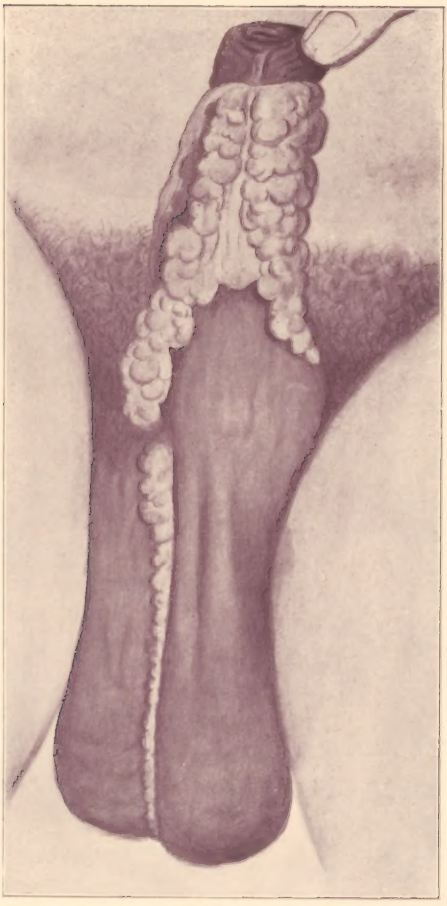

FIG. 3.

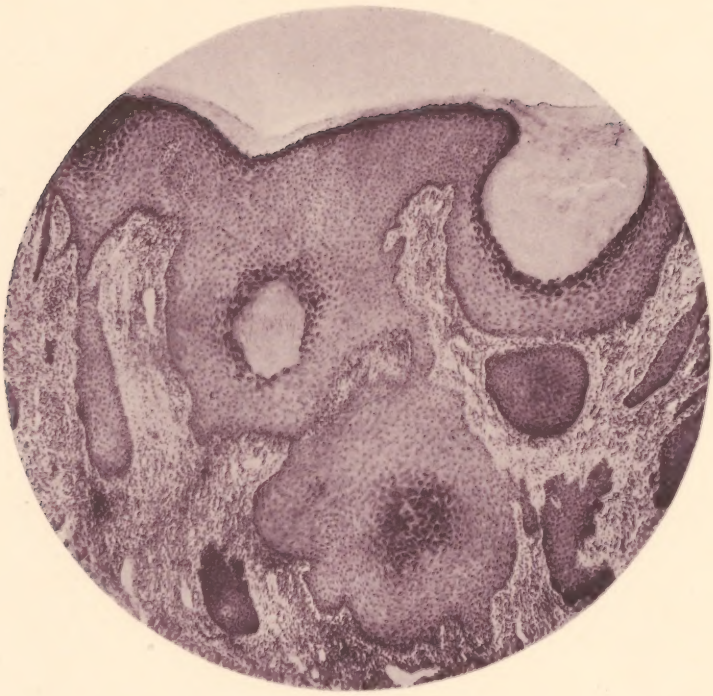

FIG. 4.—Section through a papule, showing hypertrophy of the epidermis. Spencer 1 in. Comp. ocular 4, Zeiss. × 60.

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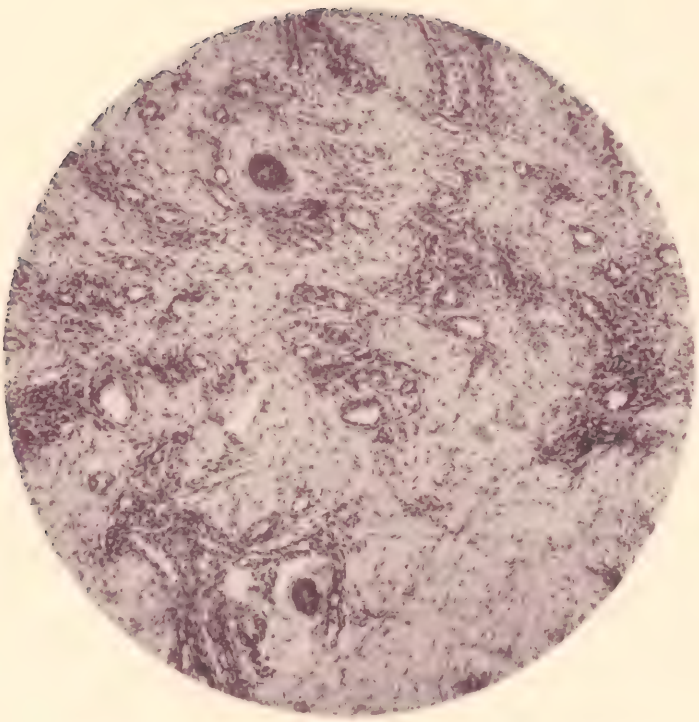

FIG. 5.—Section showing the dilated vessels, cell infiltration, and new formation of connective tissue in the deeper layer of the derma. Spencer ½ in. Projection ocular 2, Zeiss. × 100.

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HYPERTROPHIC LICHEN PLANUS.

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THE case I am about to describe presents such an unusual and interesting manifestation of a cutaneous eruption as to be worthy of careful study and record.

F. B., aged fifty-four; German; machinist. His father and mother died when they were quite old.

Two children are at present alive from a family of eight.

He gives no history or evidence of venereal disease, and is not of intemperate habits.

He has had on several occasions outbreaks of urticaria on the face and body.

About two and one-half years ago he had an attack of rheumatism of the right knee and ankle, attended with considerable pain and swelling of the parts. He applied for the relief of the pain a number of lotions and liniments, and took "potash" internally.

The skin eruption from which he now suffers began as small itching papules over the anterior surface of the right leg, following the application of the lotions to this part.

Scratching caused a slight watery discharge, but aside from this occasional manifestation of moisture, the eruption has been quite dry and distinctly papular.

The popliteal spaces were next involved, on the right side the lesions being more numerous and larger than on the left. The

penis and scrotum were implicated about eighteen months ago, a small area on the anterior surface of the left leg and a portion of the skin covering the sacrum nine months later.

The upper extremities and trunk have never been involved aside from the localities mentioned. The general health of the patient has, in the main, been good.

The urine contains neither sugar or albumin; the heart is normal.

Description and Sites of the Eruption.—The anterior surface of the right leg is the seat of numerous, closely-aggregated, flat-topped, warty elevations, of a purplish red to a brownish red color, and of irregular outlines. (See Fig. 1.) These lesions are moderately firm, and covered by a thickened stratum corneum, which can be seen as minute horny plugs dipping below the cutaneous surface. Surrounding the warty lesions are a great number of brownish-red papules situated around and independent of the hair follicles. These papules correspond in their main features with lichen-planus papules, having flat, shiny tops, angular outlines, and some showing the central dell. The lesions vary in size from those the size of a pin's head to papules as large as a pea, or even larger, the larger ones assuming the characteristics of the individual lesions making up the warty, elevated areas. Intermingled with and about the smaller papules are individual and grouped sepia-brown to black pigment spots, which evidently represent the involution stage of the papules that have not developed into the larger tumors. This pigmented area extends upward and outward over the leg until it becomes continuous with a similar group of lesions in the right popliteal space. Here the same general condition exists of warty growths, small papules, and pigmented spots, as seen on the anterior surface of the leg. The warty growths in this locality are softer, pinkish to bluish-red in color, and form the most prominent feature of the clinical picture. (See colored plate.) They are elevated from a quarter to half an inch above the skin level, and form a band-like group extending across the popliteal space for a distance of three inches or more. At right angles to this band another group of lesions extends upward. A group of pigmented spots is seen in the colored plate on the posterior aspect of the leg at the site of former papules.

The left popliteal space and the sacral region on either side of the gluteal fold are affected in a similar, though less pronounced, manner.

The genital region is implicated in a most curious and striking manner by the new growths, which are seen as isolated, dome-

FIG. 1.—Hypertrophic Lichen Planus of leg, showing warty growths and pigmented spots.

shaped, hard, purplish-red papules in the hair over the pubes. The skin of the penis, with the exception of a narrow ring about the prepuce, is almost completely surrounded by the papillomata, which have coalesced in a diffuse infiltration made up of elevations and depressions. (Fig. 2, plate.) The growth here is distinctly pinkish in color, quite firm, painless to pressure, perfectly dry, and not marked by evident desquamation. The skin which is not attacked is the seat of a deep patchy pigmentation, and spots of leucoderma.

On elevating the organ its under surface is seen to be the seat of similar warty tumors, which are arranged in the form of bands on either side of the rhaphe, and extend in a continuous, beadlike line of nodules along the rhaphe of the scrotum, suggesting an auto-inoculation from contact with the apposed surface. (Fig. 3, plate.)

The scrotum is deeply pigmented; the inguinal nodes somewhat enlarged, but painless.

The posterior surfaces of the forearms are a trifle pigmented, rough, and show a papular development not unlike that seen in prurigo mitis.

The patient has been under my constant observation during the past six months, during the greater part of the time at the City Hospital, but no marked change has, until recently, taken place in the appearance of the eruption. Arsenic in increasing doses has been given internally, and ichthyol, Unna's salve, and various other local agents employed.

Early in the present year he presented himself with a swollen and painful condition of the left leg, which extended from the dorsum of the foot almost to the knee. The anterior and outer surface of the leg was covered with numerous purpuric patches. The leg was very painful to touch and locomotion was difficult. An abscess subsequently developed near the left ankle which was opened and drained. The infiltrated patch on the right leg was also more swollen and hyperemic, and a number of pustules and abraded spots were found among the old lesions.

Some of the papillomatous lesions had disappeared, while others were smaller and more scaly. Few of the nodules were found in the pubic region, and many of the warty growths had disappeared from the penis; others were softer, desquamating, and evidently in process of rapid involution. The linear growths along the scrotal rhaphe could scarcely be made out.

The condition in the popliteal space, as shown in the colored plate, had undergone little change.

Microscopic Examination.—A papule of medium size was excised,

placed in a five-per-cent. formalin solution for a few days, and afterward hardened in alcohol. The sections were stained in hematoxylin and eosin, and by other methods; the best results being attained by hematoxylin alone, and in combination with eosin. Under a low power the pathological process is seen to involve the epidermis, the derma, and to some extent the underlying connective tissue. The epidermis has undergone marked hypertrophy (Fig. 4, plate), the stratum corneum dipping below the level of the skin in stratified masses, which are visible on macroscopic examination. The stratum granulosum, as would be expected, is several times its normal thickness, the eleidin granules taking the stain intensely.

The stratum spinosum has shared in the general hypertrophic process, extending in the form of interpapillary process deep into the dermal tissues. Detached masses of epithelial tissue are seen away from their epidermic connection, which are actively infiltrated with leucocytes. These separated epithelial groups are in process of rapid disintegration, in some cells the nuclei being absent; and in most of them the protoplasm seems to have undergone a colloid degeneration. This degenerative process involves certain cells in the spinous layer of the epidermis, the nuclei of which take the stain imperfectly or not at all. The epidermis is also the seat of a moderate leucocytic infiltration, more marked between the cells of the deeper layers, but extending in a minor degree to the more superficial region.

The cutis is the seat of pronounced changes of an inflammatory character, consisting of marked cell infiltration, serous exudation, dilatation of the capillaries, small vessels and lymph spaces, connective-tissue hypertrophy in various stages, and newly-formed capillaries.

The cell infiltration is most pronounced in the papillary and subpapillary layers, made up chiefly of mononuclear leucocytes, with granular protoplasm.

In the deeper layers the connective-tissue hypertrophy is more pronounced, and the cell infiltration limited to the neighborhood of the vessels. (Fig. 5, plate.)

Under a higher power the cell growth about the vessels is, as stated, principally comprised of irregularly shaped cells, with single nuclei, which are undergoing organization into young connective tissue; the caliber of some of the vessels has been destroyed by the growth and contraction of this newly-formed fibrous tissue. In Fig. 5 two such vessels are seen to be almost obliterated by the surround-

ing cell growth. It is probably in this way that spontaneous involution of certain lesions is taking place, as mentioned in the clinical description of the eruption. Sebaceous, sweat glands and hair follicles were absent from the sections examined.

The process is thus seen to be an essentially inflammatory one, of a chronic character, the epidermic hypertrophy differing in degree only from that met with in typical instances of lichen planus. In a recent papule of lichen planus the cell infiltration is sharply limited to the superficial dermal region, but in older lesions of the disease the deeper portions of the cutis are implicated as well.

The microscopic study of the disease, therefore, rather favors the diagnosis of lichen planus, although the clinical picture of certain phases of the eruption is unlike any manifestation of that disease which has heretofore come under my observation. Whether the papillomata bear the same relationship to the underlying inflammation as those met with in certain other long-standing chronic inflammations of the derma, is difficult to determine. In chronic eczema of the leg, elephantiasis, as well as in various other dermatoses, the same sclerotic changes are frequently met with in the cutis, followed occasionally by papillary outgrowths.

It is probable that in all these chronic inflammations the sclerosis of the fibrous tissue, by interfering with the normal nutrition of the epidermis, favors the abnormal growth of this structure. Chronic inflammatory changes in the cutis, by diminishing its normal resisting power, is also at times a factor in determining a downgrowth of the epithelium.

The papillomata, which my patient presented in such a marked degree, could scarcely be looked upon as an accidental or secondary condition, as many of the smaller papules presented in miniature the same appearance as the larger confluent plaques; the warty growths seeming to spring up from the normal skin and not to originate from infiltrated regions, as would probably be the case were they secondary phenomena only. We must either infer that some peculiarity exists on the part of the patient's tissues, which render them more susceptible to the development of such growths, or suppose that some specific organism is present which has the power to stimulate directly the epithelial tissue.

Diagnosis.—The patient whose case has been reported was shown at the October (1896) meeting of the New York Dermatological Society, and while some difference of opinion existed among the members present as to the true character of the eruption, the majority regarded it as an unusual manifestation of lichen planus.

In this opinion Dr. T. Colcott Fox of London, who was present, concurred. The case was afterward seen by Dr. L. A. Duhring, who also believed it to be a rare form of lichen planus. This diagnosis was rendered probable by the numerous small lesions scattered over the lower extremities, which presented all the features of the lichen papule, and which terminated by spontaneous involution, leaving behind pigmented spots and areas.

The lesions on the genital organs, if seen alone, would in no way support such a diagnosis, as none of the usual appearances of the typical eruption were present. It was only by a consideration of the entire eruption, and, by a process of exclusion, that such a diagnosis could be made.

The symmetry of the disease, the intense pruritus, and, more than all, the histological structure of the new growth, were additional arguments in favor of such a diagnosis.

The vegetating growths met with in syphilis, tuberculosis, pemphigus, eczema, elephantiasis, yaws, etc., could readily be excluded by the entire absence of other signs pointing to those affections.

Kaposi's case of lichen ruber moniliformis (*Vierteljahresschrift f. Dermat. u. Syph.*, 1886, p. 571) which has been so often quoted, is considered by this writer to have been a rare form of lichen planus. In some of its features my case resembles this one, notable in the bead-like arrangement of the lesions along the scrotal rhaphe.

The eruption in Kaposi's case was much more extensive and the moniliform arrangement of the raised nodules more pronounced. In the regularity of their distribution, as shown in the colored plate which accompanies his original article, the raised nodular lines suggest an implication of the lymphatic vessels. The presence of small characteristic papules and brown pigmentations determined the diagnosis in his case as in my own.

Róna and Dubreuilh have observed similar forms since the publication of Kaposi's report. (Referred to in Kaposi's *Pathologie und Therapie der Hautkrankheiten*, vierte auflage.)

The case of lichen ruber moniliformis which is reported by Fox in Morrow's system was one of pityriasis rubra pilaris.

Unna (*Die Histopathologie der Hautkrankheiten*, p. 321) criticises the histological report of Kaposi's case, saying that in no respect do the findings agree with what we encounter in lichen planus. The cell infiltration in the report in question was found in the subpapillary layer of the cutis, and showed no evidence of undergoing connective-tissue transformation. Numerous giant cells were also seen which are not found in lichen planus.

The epidermis, furthermore, showed no marked evidence of hypertrophy; in this respect, as well as in the other morbid changes, differing widely from the affection which I report.

Another case which presents many points of analogy with mine has recently been observed by Corlett (JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES, August, 1896) under the title of "A Peculiar Disease of the Skin, Accompanied by Extensive Warty Growths and Intense Itching."

The eruption was made up of reddish, slightly scaling papules on the outer surfaces of the legs. Elevated, scaling patches with warty surfaces were formed by the confluence of individual lesions. The disease subsequently appeared on other parts of the body. After a year's duration it disappeared, leaving pigmented areas, which were slowly absorbed.

Dr. Corlett's case presents many features in common with my own, and I am inclined, after a careful reading of his clinical report, to consider it one of lichen planus.

Note.—An examination of my patient, made after the foregoing report was written, showed that all the lesions were in process of active involution. The warty growths in the popliteal space were softer, smaller, and the pigmented areas were scarcely to be seen. The lesions on the genital organs and leg were decidedly less pronounced than at the last examination.

66 Park avenue.